LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISH SECTION

PART VI-A

WATERBODY MANAGEMENT PLAN SERIES

CYPRESS BAYOU RESERVOIR

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

DOCUMENT SCHEDULED TO BE UPDATED EVERY THREE YEARS

December 2014—Prepared By:
James Seales, Biologist III, District 1
Jeff Sibley, Biologist Manager, District 1
Kevin Houston, Biologist Supervisor, District 1

TABLE OF CONTENTS

LAKE HISTORY

GENERAL INFORMATION

Parish/ location
Cypress Bayou Reservoir is located in Bossier Parish, approximately 3 miles east of Benton, LA.

Date Lake Formed
Cypress Bayou Reservoir was impounded in 1975.

Impoundment
Cypress Bayou Reservoir was created by the construction of a 6,100 foot long, earthen dam and concrete spillway on Cypress Bayou. A second 1,000 foot long embankment is located to the west of the main structure and separates Cypress Bayou Reservoir from the adjacent, "sister" reservoir, Black Bayou Reservoir. The main dam has a 15 foot crown with crest elevation of 199.0 MSL.

Size (surface area)
The surface area of Cypress Bayou Reservoir is approximately 3,100 acres at normal pool stage. Normal water level fluctuations do not greatly alter surface area due to shoreline contour.

Watershed
There are 155 square miles of area (99,200 acres) that drain into Cypress Bayou Reservoir. Three major inlets contribute to Cypress Bayou Reservoir: Cypress Bayou, Little Caney Bayou and White Oak Bayou. The ratio of watershed to lake surface area is 32:1.

Pool Stage
Surface elevation of Cypress Bayou Reservoir is set at the spillway crest elevation of 180 MSL.

Spillway Width
Cypress Bayou Reservoir has a 300 foot wide concrete sharp-crested weir-type spillway designed for a maximum discharge rate of 45,400 cubic feet per second. There is a downstream energy deflecting dissipater embedded in the stilling basin approximately 15 feet below the spillway crest.

Alternate / Local Names
Cypress Bayou Reservoir is also known locally as "Cypress Lake", "Cypress Bayou", or "Cypress". On documents dealing with the design, construction, operation and maintenance of the reservoir the official names generally used are "Cypress Black Bayou Site No. 1", "Cypress Black Bayou Reservoir No. 1" or sometimes simply "Reservoir No. 1". Black Bayou Reservoir is the "sister" reservoir located adjacent to Cypress Bayou Reservoir. The two lakes are independent of one another but are connected through a concrete box culvert with sluice gates on each end.

Drawdown description

A 6 foot by 6 foot drawdown gate in the face of the spillway wall allows for a near complete dewatering of the reservoir. Cypress Bayou Reservoir can also be dewatered approximately 10-12 feet utilizing the 210 foot long interconnect structure provided the lake level of Black Bayou Reservoir has been reduced below the level of Cypress Bayou Reservoir. The lakes are connected with a 6-foot square, concrete box culvert with sluice gates on each end. See Water Use section for more information.

Who Controls

Cypress Bayou Reservoir is owned, operated and maintained by the Cypress Black Bayou Recreation and Water Conservation District (CBBRWCD) as a multipurpose reservoir. The lake commission is responsible for the control structures on the lake including operation for drawdowns. Drawdown plans from the commission are coordinated through Louisiana Department of Wildlife and Fisheries (LDWF) and Louisiana Department of Transportation and Development (DOTD) prior to opening the control structure. DOTD performs annual dam safety inspections.

LAKE AUTHORITY

Association

The CBBRWCD owns, operates and maintains Cypress Bayou Reservoir and the adjacent Black Bayou Reservoir.

Authorization

Act No. 292 of the 1958 Louisiana Legislature (**APPENDIX I**) created the CBBRWCD and granted the commission the authority to enact rules and regulations pertaining to Cypress Bayou Reservoir and Black Bayou Reservoir.

Funds for the construction of the Cypress-Black Bayou Watershed Project were provided by the United States Soil Conservation Service in an agreement dated August 16, 1967. The two reservoirs were created as multipurpose reservoirs for the storage of water for irrigation, municipal purposes, recreation, and sediment storage (APPENDIX II). The dam and control structures were designed by the Louisiana Department of Public Works.

Board of Commissioners

Members of the board of commissioners of the CBBRWCD are appointed as follows: one by the Bossier Parish Police Jury, one by the mayor and governing authority of Bossier City, one by the mayor and governing authority of the village of Benton, one by the Bossier Parish School Board, and the fifth by the Board of Commissioners of the Bossier Levee District. Any vacancy in the office of commissioner, due to death, resignation or any other cause, shall be filled by the remaining commissioners for the unexpired term.

Table 1. Cypress – Black Bayou Recreation and Water Conservation District Commissioners

Name	Appointed By:	Address	Term Expires
Walt Bigby President	Bossier City	201 Bridgepoint Circle Bossier City, LA 71111	7-31-2015
Gary Wyche Vice President	Town of Benton	1337 Linton Road Benton, LA 71006	7-31-2016
Alan Warren Secretary	Bossier Levee District	371 Vance Road Benton, LA 71006	7-31-2017
Robert Berry Executive Director	Bossier Police Jury	121 Preston Bay Benton, LA 71006	7-31-2018
Jerry Fowler	Bossier Parish School Board	2008 Chelsey Benton, LA 71006	7-31-2019

Robert Berry – Executive Director of the Cypress Black Bayou Recreation and Water Conservation District. 318-965-2289.

Cypress – Black Bayou Recreation and Water Conservation District
135 Cypress Park Dr.
Benton, LA 71106
318-965-0007
http://www.cypressblackbayou.com/

ACCESS

Boat Ramps

There are four public boat launching facilities available for use at Cypress Bayou Reservoir. Each ramp is owned by the CBBRWCD and offers bank fishing and a boat mooring pier.

All boats on Cypress Bayou Reservoir are required to have a boat permit issued by the CBBRWCD. These permits must be obtained annually and additional fees are required for use of the CBBRWCD facilities for access, parking, or launching. Boat permits and other annual passes may be obtained at the Cypress-Black Bayou Park. Additional information regarding such fees can be found at: http://www.cypressblackbayou.com/price.html. Names of the ramps, physical descriptions and geo-referenced locations are provided in Table 2.

Table 2. Locations and descriptions of public boat ramps on Cypress Bayou Reservoir, LA.

Ramp	Coordinates NAD83	Ramp	Parking
Cypress Park (Public – Pay to Launch)	32.671990° N -93.675031° W	Concrete	Blacktop – 60 Trailers
Cypress Dam (Public – Pay to Launch)	32.651590° N -93.666311° W	Concrete	Blacktop - 70 trailers
Hwy 162 Ramp (Public – Pay to Launch)	32.707070° N -93.687689° W	Concrete	Blacktop – 20 Trailers
Cypress Park – Camping Area (Registered Campers Only)	32.681357° N -93.667377° W	Concrete	Campers park at their designated campsite

See **APPENDIX III** - "Cypress Bayou Reservoir Public Boat Ramps" for mapped locations of ramps.

State / Federal Facilities

There is no state or federal facilities on the lake.

In addition to the boat launches at the dam and Hwy. 162, the CBBRWCD operates the Cypress Black Bayou Park and Recreation Area which has cabin rentals, camping areas, RV hookups, restrooms, boat launches, fishing piers, day use facilities, playgrounds, a small zoo, a nature center, and a swimming beach. For more information on the Cypress Black Bayou Park and Recreation Area please visit the following site:
http://www.cypressblackbayou.com/

Artificial Reefs

No artificial reefs have been placed in Cypress Bayou Reservoir by LDWF.

Piers

The CBBRWCD has several piers at the Cypress Black Bayou Park and Recreation Area. These piers range from small boat mooring piers to large, lighted fishing piers which extend 250 feet out into the lake (Figure 1).

Figure 1. One of the three fishing piers located in Cypress Black Bayou Park on Cypress Bayou Reservoir, LA.

SHORELINE DEVELOPMENT

The majority of the shoreline of Cypress Bayou Reservoir is developed with residential properties except areas within the Cypress Black Bayou Park and Recreation Area or above the Hwy. 162 Bridge.

CBBRWCD regulations pertaining to riparian landowners can be found at the link below:

http://www.cypressblackbayou.com/landownerrules.pdf

PHYSICAL DESCRIPTION OF LAKE

Shoreline Length
Approximately 30.7 miles

Timber Type
Cypress Bayou Reservoir is situated on gently sloping to nearly level poorly drained soils in the Cypress Bayou stream bottom and terrace. Prior to impoundment, the majority of the stream bottom and terrace consisted primarily of hardwood forest.

Average Depth
8.3 feet

Maximum Depth
20.0 feet

Total Water Storage Volume at Pool Stage
25,800 acre feet

Natural Seasonal Water Fluctuation
2-3 feet

EVENTS/ PROBLEMS

Eutrophication
The upper end of Cypress Bayou Reservoir is gradually becoming shallow, which is typical of ageing impoundments. This is a result of nutrient input from the stream and watershed and sediment deposition from the stream. These shallow, nutrient rich waters are ideal habitat for aquatic vegetation. This problem is compounded when aquatic vegetation dies, sinks to the bottom of the lake, decomposes slowly and begins to form layers of organic muck on the lake bed. Leaf litter and other organic material also contribute to the buildup of muck on the lake bed. This soft bottom can make spawning difficult for nest building fish such as bass, crappie, and bream. Over a long period of time, these species typically decline in numbers and are replaced by rough fish that spawn in different manners.

Commission Rules and Regulation Issues
Historically, there has been some concern with the CBBRWCD passing rules and regulations pertaining to Cypress Bayou Reservoir for which the CBBRWCD did not have jurisdiction. Various resolutions were passed by the CBBRWCD from the mid 1980's through early 2000's attempting to ban the use of fishing gears such as nets and yo-yo's, and implementing a 12-inch minimum length limit for black bass on the lake. LDWF representatives met with or sent correspondence to the CBBRWCD regarding these issues and explained that the CBBRWCD did not have the authority to regulate the fishery resources in the lake. This has not been an issue within the past 10 years.

MANAGEMENT ISSUES

AQUATIC VEGETATION

Nuisance aquatic vegetation has been present in Cypress Bayou Reservoir for many years. However, it is not a major hindrance for recreational boating and fishing access in the majority of the lake. The area above and immediately below the Hwy. 162 Bridge on the upper end of the lake is where the majority of the aquatic vegetation problems persist. American lotus (*Nelumbo lutea*) is often a problem in this area of the lake. Access for foliar herbicide treatments can be difficult due to the shallow water depths and numerous stumps. The extreme upper end of the coves of the lake can also harbor problematic vegetation. The remainder of the lake is generally either free of aquatic vegetation or is limited to a fringe along the shoreline.

In 1998, hydrilla (*Hydrilla verticillata*) was documented in Cypress Bayou Reservoir. Hydrilla becomes dense some years in the shallow area of the lake just below the Hwy. 162 boat launch and will limit boating access to the creek channel. It does not severely impact recreational activities in the main lake. Wave action and turbidity appear to control the plant in this area.

Giant salvinia (*Salvinia molesta*) was first documented in Cypress Bayou Reservoir in 2007. The plant has not become a significant problem on this lake. Foliar herbicide applications have been utilized on an as needed basis to help control the plant around the boat launches and other areas that harbor the plants. Very few mats have become established on the lake. It is apparent that the physical characteristics of the lake are beneficial in helping keep this plant under control. Much of the shoreline is open, windswept, and exposed to wave action.

DRAWDOWN HISTORY

Drawdowns have been used infrequently on Cypress Bayou Reservoir and have been primarily used for shoreline maintenance and erosion control. Information from the CBBRWCD indicates that Cypress Bayou Reservoir has undergone four drawdowns following initial impoundment. Although not completely documented, the lake was likely dewatered twice during the 1980's. A letter from 1985 indicated plans for a future drawdown and discussed occurrences from the "last drawdown." Specific details of these two events are unknown. The drawdown history of Cypress Bayou Reservoir from 1999 to 2014 can be found in Table 3.

The CBBRWCD is responsible for operation and maintenance of the control structure, spillway and dam. Drawdown plans from the CBBRWCD are coordinated through LDWF and DOTD prior to opening the control structure.

Table 3. Drawdown history of Cypress Bayou Reservoir, LA from 1999 to 2014.

Date Opened	Date Closed	Depth Below Pool	Purpose	Results
10/1999 (approx.)	1/17/2000 (planned closure)	5 feet	Shoreline maintenance, repair and restoration of beach at park, erosion control	Good
Notes:	Gate closed on 12/1/1999 at target depth and not operated again.			
9/8/2009	1/15/2010 (planned closure)	6 – 8 feet	Shoreline maintenance, repair and restoration of beach at park, erosion control	Unsuccessful due to heavy rains and flooding.
Notes:	Drawdown cancelled due to heavy rains and flooding			
8/15/2010	1/15/2011	6 – 8 feet	Shoreline maintenance, erosion control, repair and restoration of beach, aquatic vegetation control.	Good
Notes:	Lake did not return to pool until March 10, 2012 due to drought. This slow refill allowed hydrilla to expand in some shallow areas on the upper end and extend further into the lake. Small clumps of marginal plants became established off the shoreline providing beneficial fish cover.			

Aquatic Vegetation Surveys and Type Maps

Vegetation type map surveys were conducted on Cypress Bayou Reservoir by personnel from the Aquatic Vegetation Control Section of LDWF each year from 1990-2001 except 1996. Surveys were conducted by LDWF Inland Fisheries personnel in 2006 and 2009. The results of the latest survey in 2009 can be found in **APPENDIX IV**. The remainder of the aquatic vegetation type maps and narratives can be found in Cypress Bayou Reservoir MP-C.

Aquatic Vegetation Treatment History

Biological

No biological control agents have been introduced on Cypress Bayou Reservoir.

Chemical

The use of herbicides is an important component of the LDWF integrated pest management program. The proper selection and use of herbicides is essential to achieve cost effective benefits and to avoid damage to non-target species. Each product listed has been approved by the Environmental Protection Agency (EPA) for aquatic use. Aquatic vegetation is treated according to the standard operating procedures for the application of herbicides as adopted by the LDWF Inland Fisheries Section.

Foliar herbicide applications by LDWF spray crews or contractors for control of giant salvinia have been ongoing since the plant was discovered in Cypress Bayou Reservoir in 2007. Contractors have been used on one occasion in 2013 when an application was made to 17 acres of giant salvinia. Prior to the discovery of giant salvinia on the lake, the predominant problem was American lotus on the upper end of the reservoir. Foliar herbicide applications by LDWF spray crews for floating and emergent aquatic vegetation are listed in Table 4.

Table 4. Herbicide applications by LDWF Spray Crews in Cypress Bayou Reservoir, LA, 2007 – 2014.

Treatment Year	Primary Plant Species	Herbicides Used	Acres Treated
2007	water shield, giant salvinia, water hyacinth	Aqua Master – 2 gals. (1 gal/acre) Reward – 1 gal. (1 gal/acre)	3
2008	American lotus, giant salvinia, water hyacinth, giant cut grass, alligator weed	Aqua Star – 26.6 gals (0.75 gal/acre) Aqua Master – 6 gals. (0.75 gal/acre) Diquat 0.25 gals. (1 gal/acre)	43.3
2009	giant salvinia, American lotus, water hyacinth, giant cut grass, alligator weed, water lily, watershield	Aqua Master – 152.5 gals. (0.75 gal/acre) Aqua Star – 1.2 gals. (0.75 gal/acre) Diquat 11.5 gals. (1 gal/acre)	217
2010	American lotus, water lily, Alligator weed, giant salvinia, water hyacinth, giant cut grass, watershield	Aqua Master – 6.5 gals (0.75 gal/acre) Knockout – 1.25 gals. (1 gal/acre) 2,4-D – 28.5 gals. (0.5 gal/acre)	143
2012	Alligator weed, smartweed, primrose, giant cut grass	Aqua Master – 15 gals. (0.75 gal/acre)	20
2013	giant salvinia, giant cut grass, alligator weed, primrose,	Ecomazapyr – 15.5 gals. (0.5 gal/acre) Rodeo – 12.75 gals. (0.75 gal/acre) Tribune – 7 gals. (1 gal/acre) Clearcast – 6 gals.	72

		(0.5 gal/acre) Aqua Master – 5 gals (1 gal/acre)	
2014	Alligator weed, giant cut grass	Ecomazapyr – 12.5 gals. (0.5 gal/acre)	25

In addition to herbicide applications by LDWF spray crews, the Cypress Black Bayou Recreation and Water Conservation District utilizes their personnel for spraying aquatic vegetation along the shoreline of the park areas. They also employed a contractor in 2006 for a one-time treatment of American lotus and alligator weed on Cypress Bayou Reservoir (acres treated unknown).

HISTORY OF REGULATIONS

Recreational

Statewide regulations have been in effect for all game fish species since impoundment.

The recreational fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/fishing/regulations

Commercial

In April of 2002, legislation was passed which gave the Louisiana Wildlife and Fisheries Commission the authority to regulate recreational and commercial use of hoop nets, gill nets, trammel nets, strike nets, seines, wire nets, wire traps, and slat traps on Cypress Bayou Reservoir and Black Bayou Reservoir.

The use of gill nets, trammel nets and fish seines was prohibited in Cypress Bayou Reservoir and Black Bayou Reservoir in September 2002 by the Louisiana Wildlife and Fisheries Commission. This regulation was established in an effort to protect the large bass in the reservoir which are susceptible to capture in these types of entanglement gears.

Further restrictions were implemented in August of 2004 in response to requests from the Cypress Black Bayou Recreation and Water Conservation District and shoreline property owners who were "concerned about the depletion of the catfish population, killing of game fish and turtles and nets being a safety hazard to swimmers and water craft on the reservoirs." At this time, the Louisiana Wildlife and Fisheries Commission added prohibitions on the use of hoop nets, slat traps, and wire nets except during an established special season which runs from November 1 through the end of February of the following year. During this special season, the use of hoop nets, slat traps and wire nets is allowed.

The statewide commercial fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/fishing/regulations

FISH KILLS / DISEASE HISTORY, LMBV

No major fish kills on Cypress Bayou Reservoir have been reported to LDWF in recent years.

LMBV - Largemouth Bass Virus is a naturally occurring waterborne virus that effects fish, but is not known to infect warm-blooded animals. The virus has been found in other members of the sunfish family, but has only proved fatal to largemouth bass. The virus affects the swim bladder in largemouth bass. Largemouth bass which are exhibiting symptoms of the disease lose their ability to control their buoyancy and experience trouble swimming and appear bloated. The fish eventually float to the surface where they can be affected by other environmental stressors. Most bass infected with largemouth bass virus appear normal. Adult bass weighing two pounds or more appear to be most susceptible to the disease. Researchers are uncertain as to what triggers an epizootic outbreak, but as most fish kills occur during the warmer months, high water temperatures and poor water quality may contribute to development of the disease. It is uncertain as to whether Largemouth Bass Virus will have any long term impacts to any body of water where it is known to occur. It appeared that the incidence of disease and infection rate diminished with time after the initial infection of fish in a given waterbody. Sampling for Largemouth Bass Virus has not been conducted on Cypress Bayou Reservoir. It is likely that Largemouth Bass Virus is present in the lake because 6.7% of 60 largemouth bass sampled from the adjacent Black Bayou Reservoir tested positive in 2002. Additionally, 20 bluegills and 10 redear were tested for LMBV. No individuals of either of these species tested positive.

CONTAMINANTS/POLLUTION

No Fish Consumption Advisory has been issued for Cypress Bayou Reservoir.

BIOLOGICAL

Fish Sampling History:

The Louisiana Department of Wildlife and Fisheries began conducting fisheries sampling on Cypress Bayou Reservoir in 1980. The fish sampling history from 1980 to 2014, along with proposed future sampling, can be found in Table 5.

Table 5. Historical, and scheduled fish sampling on Cypress Bayou Reservoir, LA, from 1980 to 2018.

YEAR	GEAR
1980	2 – One Acre Rotenone Sets
1982	2 – One Acre Rotenone Sets
1985	3 – One Acre Rotenone Sets
1986	2 – One Acre Rotenone Sets

1987	3 – One Acre Rotenone Sets
1995	Electrofishing - 125 minutes of sampling – Spring Electrofishing - 66 minutes of sampling – Fall / Includes Forage Sample
1996	Electrofishing - 101 minutes of sampling – Spring
2000	Electrofishing 4 – 15 minute samples – Fall / Includes 1 Forage Sample Gill Nets: 4 – 300’ Gill Net Sets – 2.5” Bar, Mono 4 – 300’ Gill Net Sets – 3” Bar, Mono 4 – 300’ Gill Net Sets – 3.5” Bar, Mono 4 – 300’ Gill Net Sets – 4” Bar, Mono
2001	Gill Nets: 10 – 300’ Gill Net Sets – 2.5” Bar, Mono 10 – 300’ Gill Net Sets – 3” Bar, Mono 10 – 300’ Gill Net Sets – 3.5” Bar, Mono 10 – 300’ Gill Net Sets – 4” Bar, Mono
2002	Electrofishing 6 – 15 minute samples – Spring Gill Nets: 2 – 300’ Gill Net Sets – 2.5” Bar, Mono 2 – 300’ Gill Net Sets – 3” Bar, Mono 2 – 300’ Gill Net Sets – 3.5” Bar, Mono 2 – 300’ Gill Net Sets – 4” Bar, Mono
2003	Gill Nets: 6 – 300’ Gill Net Sets – 2.5” Bar, Mono 6 – 300’ Gill Net Sets – 3” Bar, Mono 6 – 300’ Gill Net Sets – 3.5” Bar, Mono 6 – 300’ Gill Net Sets – 4” Bar, Mono
2004	Gill Nets: 6 – 300’ Gill Net Sets – 2.5” Bar, Mono 6 – 300’ Gill Net Sets – 3” Bar, Mono 6 – 300’ Gill Net Sets – 3.5” Bar, Mono 6 – 300’ Gill Net Sets – 4” Bar, Mono
2005	Gill Nets: 6 – 300’ Gill Net Sets – 2.5” Bar, Mono 6 – 300’ Gill Net Sets – 3” Bar, Mono 6 – 300’ Gill Net Sets – 3.5” Bar, Mono 6 – 300’ Gill Net Sets – 4” Bar, Mono
2006	Electrofishing 6 – 15 minute samples – Spring Electrofishing 7 – 15 minute samples – Fall / Includes 1 Forage Sample Gill Nets: 6 – 300’ Gill Net Sets – 2.5” Bar, Mono 6 – 300’ Gill Net Sets – 3” Bar, Mono 6 – 300’ Gill Net Sets – 3.5” Bar, Mono 6 – 300’ Gill Net Sets – 4” Bar, Mono
2008	Gill Nets: 6 – 300’ Gill Net Sets – 2.5” Bar, Mono 6 – 300’ Gill Net Sets – 3” Bar, Mono 6 – 300’ Gill Net Sets – 3.5” Bar, Mono

	6 – 300’ Gill Net Sets – 4” Bar, Mono
2009	Electrofishing 6 – 15 minute samples – Spring
2013	Electrofishing 6 – 15 minute samples – Spring Electrofishing 6 – 15 minute samples – Fall 4 – 225 second Forage Samples – Fall
2014	Gill Nets: 6 – 300’ Gill Net Sets – 2.5” Bar, Mono 6 – 300’ Gill Net Sets – 3” Bar, Mono 6 – 300’ Gill Net Sets – 3.5” Bar, Mono 6 – 300’ Gill Net Sets – 4” Bar, Mono
2015	No planned sampling
2016	Begin largemouth bass and crappie mortality studies Electrofishing 6-15 minute samples (spring and fall) Electrofishing Forage Sample 4-225 second samples (fall) Lead Nets-6 stations Gill Netting – 6 samples each including: 300' 2.5 in. bar. 300' 3.0 in. bar. 300' 3.5 in. bar 300’ 4.0 in. bar
2017	Continue largemouth bass and crappie mortality studies Electrofishing 6-15 minute samples (spring and fall) Electrofishing Forage Sample 4-225 second samples (fall) Lead Nets-6 stations Gill Netting – 6 samples each including: 300' 2.5 in. bar. 300' 3.0 in. bar. 300' 3.5 in. bar 300’ 4.0 in. bar Recreational Angler Survey
2018	Complete largemouth bass and crappie mortality studies Electrofishing 6-15 minute samples (spring and fall) Electrofishing Forage Sample 4-225 second samples (fall) Lead Nets-6 stations Gill Netting – 6 samples each including: 300' 2.5 in. bar. 300' 3.0 in. bar. 300' 3.5 in. bar 300’ 4.0 in. bar

Lake Records

The Louisiana Outdoor Writers Association (LOWA) is the official curator of fish records for the State of Louisiana. No lists are kept specifically for Cypress Bayou Reservoir. Complete information regarding Louisiana fish records is included in the attached site: http://www.laoutdoorwriters.com/Records/LouisianaFishRecords/tabid/87/Default.aspx

Stocking History

No records are available to indicate what initial fish stockings, if any, were conducted following impoundment of Cypress Bayou Reservoir. Hybrid striped bass were stocked in the reservoir in an effort to control an over-abundant population of large gizzard shad. Florida largemouth bass stockings began in 1992. The initial stocking efforts were conducted by the Louisiana Florida Bass Alliance (LFBA) in conjunction with their program at the Cross Lake Fish Hatchery. In 2000, a new cooperative agreement was formed between the City of Shreveport, Bass Life Associates, and LDWF to operate the Cross Lake Hatchery. Under this new arrangement, LDWF provided fry and assistance with hauling fish to stocking locations. The majority of the Florida largemouth bass stocked in Cypress Bayou Reservoir have been produced under this program. The stocking history of Cypress Bayou Reservoir by LDWF from 1985 to 2014 is found in Table 6.

Table 6. The fish stocking history by LDWF for Cypress Bayou Reservoir, LA.

Date	Number / Species stocked
1985	25,000 hybrid striped bass fingerlings
1987	6,279 blue catfish fingerlings
1992	50,000 Florida largemouth bass fingerlings
1993	15,000 Florida largemouth bass fingerlings
1995	10,000 Florida largemouth bass fingerlings
2000	47,250 Florida largemouth bass fingerlings
2001	39,187 Florida largemouth bass fingerlings
2002	41,696 Florida largemouth bass fingerlings
2003	36,147 Florida largemouth bass fingerlings
2004	35,353 Florida largemouth bass fingerlings
2005	35,147 Florida largemouth bass fingerlings
2007	35,399 Florida largemouth bass fingerlings
2008	35,042 Florida largemouth bass fingerlings
2010	71,695 Florida largemouth bass fingerlings
2011	24,212 Florida largemouth bass fingerlings
2014	42,815 Florida largemouth bass fingerlings

Largemouth Bass Genetics

Genetic analysis of the largemouth bass population in Cypress Bayou Reservoir was conducted in 1995, 2004, and 2006 (Table 7). The Florida genome was not detected in the 1995 samples but increased to 27% in the 2004 sample and comprised 23% in the 2006 sample. The percentage of pure Florida largemouth bass has remained very low ranging from 0% to 4%.

Table 7. – Largemouth bass genetic analysis from Cypress Bayou Reservoir, LA.

Year	Number	Northern %	Florida %	Hybrid %
1995	41	100%	0%	0%
2004	30	73%	0%	27%

2006	57	77%	4%	19%

Species Profile:

Table 8. List of indigenous freshwater fishes found in Cypress Bayou Reservoir, LA through LDWF standardized sampling efforts.

Gar Family, LEPISOSTEIDAE
Spotted gar, *Lepisosteus oculatus* (Winchell)

Bowfin Family, AMIIDAE
Bowfin, *Amia calva* Linnaeus

Herring Family, CLUPEIDAE
Gizzard shad, *Dorosoma cepedianum* (Lesueur)
Threadfin shad, *Dorosoma petenense* (Günther)

Minnow Family, CYPRINIDAE
Common Carp, *Cyprinus carpio* Linnaeus
Golden shiner, *Notemigonus crysoleucas* (Mitchill)

Sucker Family, CATOSTOMIDAE
Lake chubsucker, *Erimyzon sucetta* (Lacépède)
Bigmouth buffalo, *Ictiobus cyprinellus* (Valenciennes)
Spotted sucker, *Minytrema melanops* (Rafinesque)

Freshwater Catfish Family, ICTALURIDAE
Black bullhead, *Ameiurus melas* (Rafinesque)
Yellow bullhead, *Ameiurus natalis* (Lesueur)
Blue catfish, *Ictalurus furcatus* (Lesueur)
Channel catfish, *Ictalurus punctatus* (Rafinesque)

Tadpole madtom, *Noturus gyrinus* (Mitchill)

Pike Family, ESOCIDAE
Grass pickerel, *Esox americanus vermiculatus* Lesueur
Chain pickerel, *Esox niger* Lesueur

Pirate Perch Family, APHREDODERIDAE
Pirate perch, *Aphredoderus sayanus* (Gilliams)

Killifish Family, CYPRINODONTIDAE
Blackstripe topminnow, *Fundulus notatus* (Rafinesque)

Silverside Family, ATHERINIDAE
Brook silverside, *Labidesthes sicculus* (Cope)

Temperate Bass Family, PERCICHTHYIDAE
Yellow bass, *Morone mississippiensis* Jordan and Eigenmann

Sunfish Family, CENTRARCHIDAE
Warmouth, *Lepomis gulosus* (Cuvier)
Bluegill, *Lepomis macrochirus* (Rafinesque)
Dollar sunfish, *Lepomis marginatus* (Holbrook)
Longear sunfish, *Lepomis megalotis* (Rafinesque)
Redear sunfish, *Lepomis microlophus* (Günther)
Redspotted sunfish, *Lepomis miniatus* Jordan
Bantam sunfish, *Lepomis symmetricus* Forbes
Northern largemouth bass, *Micropterus salmoides salmoides* (Lacépède)
White crappie, *Pomoxis annularis* Rafinesque
Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Perch Family, PERCIDAE
Logperch, *Percina caprodes* (Rafinesque)

Drum Family, SCIAENIDAE
Freshwater drum, *Aplodinotus grunniens* Rafinesque

Species introduced through stocking efforts:
Florida largemouth bass, *Micropterus floridanus* Kassler et al.

Threatened/Endangered/Exotic Species

No threatened or endangered fish species are known to inhabit Cypress Bayou Reservoir. Bald Eagles have nested adjacent to the lake for a number of years. An artificial platform has been created and is utilized by a nesting pair of eagles after the original nesting tree was destroyed.

CREEL

No creel surveys have been conducted on Cypress Bayou Reservoir.

HYDROLOGICAL CHANGES

There have been no major hydrological changes on Cypress Bayou Reservoir since impoundment and the subsequent completion of the adjacent Black Bayou Reservoir complex.

WATER USE

Irrigation/Municipal Use

Cypress Bayou Reservoir is a multi-purpose reservoir. The primary purpose for which the lake was built is storage of water for supplementary irrigation of cropland (15,500 acre feet). Other purposes of the lake are; a supplementary municipal water supply (2,450 acre feet), recreation (5,730 acre feet), and for the expected accumulation of 100 years of sediment (1,270 acre feet).

The lake has a surface area of approximately 3,100 acres at the spillway crest level. The minimum recreation pool is 1,050 surface acres of water. In order to maintain this minimum recreation pool area, water stored below the elevation of the recreation pool will not be withdrawn for other purposes.

The design of the Cypress – Black Bayou Reservoir Complex is unique in that the reservoirs are interconnected and designed to supply water downstream through Flat River for irrigation purposes. The two reservoirs are interconnected by a concrete box culvert that is approximately 6 feet square and 210 feet long with sluice gates on both ends. The primary purpose of the interconnect structure is to transfer water from the larger Cypress Bayou Reservoir to the smaller Black Bayou Reservoir for irrigation purposes. The structure which provides water downstream to Flat River for irrigation is located on Black Bayou Reservoir. Water can be transferred in either direction between the two reservoirs; however, the transfer of water is by gravity flow. The normal pool stage for Black Bayou Reservoir is 185.0 MSL and normal pool stage for Cypress Bayou Reservoir is 180.0 MSL. To utilize the interconnection for the intended purpose; Black Bayou Reservoir must first be lowered to a level lower than Cypress Bayou Reservoir. This would likely occur if water had already been released from Black Bayou Reservoir for irrigation purposes.

The Cypress–Black Bayou Reservoir Complex is occasionally utilized for irrigation purposes, but has never been utilized to the full design potential for irrigation. Therefore, releases for irrigation purposes have not resulted in significant dewatering of the reservoirs, or greatly impacted recreation.

Recreational Use

The lake is popular for recreational activities including fishing, boating, waterskiing, swimming and waterfowl hunting. Winter-time crappie fishing is very popular with local anglers. No permanent waterfowl blinds are allowed on the lake by the CBBRWCD.

APPENDIX I

(return to authorization)

Cypress – Black Bayou Recreation and Water Conservation District - Enabling Legislation

RS 38:2601 – 38:2612

PART III. CYPRESS-BLACK BAYOU RECREATION AND

WATER CONSERVATION DISTRICT

§2601. Creation

The Cypress-Black Bayou Recreation and Water Conservation District is hereby created.

Added by Acts 1958, No. 292, §1.

§2602. Location

The area comprising the said District shall be all of Ward 2, Sections 19, 30 and 31, Township 20 North, Range 12 West; and Sections 6, 7, 8, 17 and 18 Township 19 North, Range 12 West of Ward 5, all in Bossier Parish, Louisiana, and the following described property, to-wit:

Beginning at a point where the North line of Section 3, Township 17 North, Range 13 West, Bossier Parish, Louisiana, intersects the East Right-of-Way line of Kansas City Southern-Louisiana & Arkansas Railway Company; thence Southeasterly along the East Right-of-Way of the Louisiana and Arkansas Railroad Right-of-Way, to a corner of Barksdale Air Force Base, being also United States Monument No. 163, run thence along the Boundary of Barksdale Air Force Base as follows: North 89°57' East, a distance of 1,552.96 feet, South 14°15' East a distance of 1,714.94 feet, South 46°15' East a distance of 1,203.08 feet to a point being the most Southerly Boundary corner of Barksdale Air Force Base; North 72°35'50" East, a distance of 1,043.65 feet; South 17°24'10" East, a distance of 130 feet; run thence North 72°35'50" East, a distance of 20.43 feet; run thence South 17°24'10" East, a distance of 150 feet; run thence South 62°24'10" East, a distance of 42.42 feet; run thence South 17°24'10" East, a distance of 35.7 feet; run thence South 25°22'45" East, a distance of 68.96 feet; run thence South 33°21'30" East, a distance of 211.17 feet, run thence South 20°42'30" East, a distance of 121.26 feet; run thence South 8°03'30" East, a distance of 157.16 feet; run thence South 81°56'30" West, a distance of 310 feet; run thence North 8°03'30" West, a distance of 92.15 feet; run thence North 20°42'30" West, a distance of 136.60 feet; run thence North 33°21'30" West, a distance of 137.34 feet; run thence North 25°22'45" West, a distance of 155.06 feet; run thence North 7°24'10" West, a distance of 35.7 feet; run thence North 62°24'10" West, a distance of 42.42 feet; run thence South 72°35'50" West, a distance of 250 feet; run thence South 35°02'50" West, a distance of 50.45 feet; run thence South 72°35'50" West, a distance of 30 feet; run thence North 70°12'10" West, a distance of 50.86 feet; run thence South 72°35'50" West, a distance of 254.27 feet; run

thence South 30°23'10" West, a distance of 55.35 feet to a point being the common rear corner of Lots 84 & 85 of said Bellaire Subdivision Unit No.1; run thence South 23°53'50" East, a distance of 101.20 feet; run thence South 33°21'30" East, a distance of 351.05 feet; run thence South 71°51'40" West, a distance of 32.7 feet; run thence South 8°03'30" East, a distance of 203.2 feet to a point being the most Southeasterly corner of Bellaire Subdivision Unit No. 1, said point also being on the South Right-of-Way line of Bellaire Boulevard; run thence South 81°56'30" West along said South Right-of-Way line of Bellaire Boulevard, a distance of 90 feet to the point of a curvature of a curve to the left having the following data: Delta = 90°00', Tangent = 20 feet and Radius of 20 feet; run thence Southeasterly along said curve, a distance of 31.42 feet; run thence South 81°56'30" West, a distance of 50 feet to the point of tangency of a curve having the following data: Delta = 90°00', Tangent = 20 and Radius = 20 feet; run thence along said curve in a Southwesterly direction, a distance of 31.42 feet; run thence South 81°56'30" West, a distance of 540.59 feet to the point of curvature of a curve to the left having the following data: Delta = 25°18', and Radius = 408.70 feet; run thence Southwesterly along said curve, a distance of 180.47 feet to a point on the Northeasterly line of the Louisiana and Arkansas Railroad Right-of-Way; run thence South 33°23' East, along the East right-of-way line of the KCS-L&A Railway to the Southwest corner of Lot No. 12 of the Clay Plantation Pecan Orchard Subdivision Unit No. 1 as recorded in Book 141, Page 163, Records of Bossier Parish, Louisiana; run thence South 89°05' East a distance of 601.54 feet; run thence North a distance of 363.60 feet; run thence South 89°00' East a distance of 1,461.05 feet; run thence North 0°05' East a distance of 10 feet; run thence South 89°00' East a distance of 109.74 feet; run thence North 0°11' East a distance of 495.13 feet; run thence North 89°22' East a distance of 405.46 feet; run thence North 27°38' East, a distance of 447.90 feet, to a point being on the South boundary line of Barksdale Air Force Base, said point also being on a line common to Sections 2 and 11; run thence North 89°59' East, along said line common to Sections 2 and 11; a distance of 1,214.24 feet to a point being the common corner of Sections 1, 2, 11 and 12, Township 17 North, Range 13 West, run thence North 89°59' East, along a line common to Sections 1 and 12, a distance of 1,214.10 feet; run thence South 0°02' West, a distance of 173.50 feet; run thence South 89°58' East, a distance of 1.00 foot; run thence South 0°02' West, a distance of 150 feet; run thence South 43°52' West, a distance of 41.51 feet; run thence South 0°30' East, a distance of 673.38 feet; run thence South 49°16' East, a distance of 35.44 feet; run thence South 3°40' East, a distance of 155 feet; run thence South 86°20' West, a distance of 2.77 feet; run thence South 3°40' East, a distance of 100 feet; run thence South 49°24' West, a distance of 49.63 feet; run thence South 0°30' East, a distance of 340.17 feet; run thence South 43°21' East, a distance of 58.47 feet; run thence South 7°35' West, a distance of 146.79 feet; run thence North 82°25' West, a distance of 43.67 feet; run thence South 7°35' West, a distance of 190.88 feet to a point being on the Northerly high bank of Macks' Bayou; run thence South 0°07' East, a distance of 83.86 feet to a point on the Southerly high bank of Macks' Bayou, said point also being the Northeast corner of Lot 20 of Shady Grove Subdivision Unit No. 3 as recorded in Book 275, Pages 306 and 307 records of Bossier Parish, Louisiana; run thence South 80°11' East, a distance of 381.77 feet; run thence South 71°11' East, a distance of 621.77 feet; run thence South 69°14' East, a distance of 195.90 feet; run thence North 80°04' East, a distance of 62.90 feet; run thence East, a distance of 228.81 feet; run thence South, a distance of 925.27 feet; run thence South 89°22' West, a distance of 4,987.20 feet to a point on the West Right-of-Way line of Parkway Drive, said point being the Southeast corner of Lot 7, Replat Shady Grove Subdivision Unit No. 1; run thence South 33°13' East along said West Right-of-Way line, a distance of 150 feet; run thence South 56°47' West, a distance of 148 feet to a point on the East right-of-way line of the KCS-L&A Railroad; run thence North 33°13'

West, along said East right-of-way line, a distance of 2,108.20 feet; run thence South 89°22' West a distance of 1,254.45 feet to the East line of the Red River levee; run thence along said East levee line, as follows: North 11°36' West a distance of 1,780.5 feet, North 50°05' West a distance of 917.93 feet, North 14°35'05" West a distance of 1,439.59 feet, North 74°19'30" West a distance of 1,008.28 feet, North 14°45' West a distance of 653.58 feet, North 55°22'20" West a distance of 1,545.24 feet, North 20°39'20" West a distance of 288.78 feet, North 36°04'20" West a distance of 766.57 feet, North 14°13'20" West a distance of 444.64 feet to a point being the intersection of the Northeasterly line of the existing Red River Levee with the Northeasterly line of the original Red River Levee as shown with the Re-subdivision of Fertile Gardens Unit No. 3 as recorded in Book 60, Page 487 of Records of Bossier Parish, Louisiana; run thence Northwesterly along said Northeasterly line of said original Red River Levee (being also the Northeasterly line of the existing levee) to the intersection with the Township line between Township 17 North, Range 13 West and Township 18 North, Range 13 West; run East along the North line of Section 3, Township 17 North, Range 13 West, to point of beginning, which point is the intersection of the East right-of-way line of the Kansas City Southern Arkansas & Louisiana Railway Company with the North line of Section 3, Township 17 North, Range 13 West, Bossier Parish, Louisiana, point of beginning and being all that part of Ward One, Bossier Parish, Louisiana within the City Limits of Bossier City, Bossier Parish, Louisiana, as per Ordinance No. 800 recorded in Vol. 364, Page 290, Bossier Parish Records. In addition to all of the above described territory, there shall be included within said District all of the territory lying within the municipal limits of Bossier City, Parish of Bossier, as said limits are now or may be hereafter constituted.

Added by Acts 1958, No. 292, §2. Amended by Acts 1964, No. 305, §1; Acts 1968, No. 502, §1.

§2603. District as political subdivision and body corporate; purpose and powers; issuing bonds and levying taxes

The Cypress-Black Bayou Recreation and Water Conservation District so created shall be a political subdivision of the State of Louisiana, shall constitute a waterworks district under the provisions of Article XIV, Section 14 of the Constitution of the State of Louisiana for the year 1921, as amended, and shall have all the rights, powers, privileges and immunities hereinafter set forth. Additionally, the district shall be a budgetary unit of the State of Louisiana and shall have for its purpose the development of the wealth and natural resources of the district by the conservation of water for agricultural, municipal, recreational, commercial, industrial and sanitary purposes. It shall constitute a body corporate in law with all the powers, rights, privileges and immunities of a public corporation, and all powers necessary for it to carry out the objects for which it was created. It shall have the power to sue and be sued and to buy and sell all types of property, both real and personal, and to expropriate in accordance with law any properties which may be necessary for the accomplishment of its purposes as herein contemplated. It shall have the authority to negotiate and execute contracts, to acquire by purchase, gift, and expropriation or otherwise every type and specie of property and servitudes, rights of way and flowage rights necessary to its purpose, and to construct, build, purchase, lease, operate and maintain any facilities, works or machinery designed to accomplish the purposes of the district. It shall have complete control over the supply of fresh water made available by its facilities which shall be administered for the benefit of the persons residing or owning property within the District and if it should be for the benefit of the district it shall have the authority to

sell such water for irrigation, municipal and industrial uses both within and outside the district. The district shall constitute an agency of the State of Louisiana designed to carry out an essential governmental function of the State, and all of the property of the district shall be exempt from taxation. It shall have the authority to cooperate and contract with the government of the United States or any department or agency thereof and to accept gifts, grants and donations of property and money therefrom. It shall have the authority to cooperate with the State of Louisiana or any political subdivision, department, agency or corporation of said state for the construction, operation and maintenance of such facilities designed to accomplish the purpose for which the district is created on any basis including the matching of funds and by participating in projects authorized by any federal or state law as it shall see fit.

The district shall have authority to incur debt, issue negotiable bonds and levy taxes for the purpose of constructing, acquiring, extending or improving any lands, reservoirs, levees, channels, canals, pipe lines, pumping stations, waterworks plants and any other facilities, including buildings, machinery and equipment, for the development of the wealth and natural resources of the district by the conservation and use of water for agricultural, municipal, recreational, commercial, industrial and sanitary purposes, including the acquisition of all lands incidental or necessary for the construction, use and enjoyment thereof, such purpose being hereby found and declared to be a public purpose. Any such bonds payable from ad valorem taxation shall be issued under the terms and provisions of Sub-Part A, Part III, Chapter 4, Title 39 of the Louisiana Revised Statutes of 1950, and any revenue bonds shall be issued under the terms and provisions of Sub-Part B or Sub-Part C of Part I, Chapter 10, Title 33 of the Louisiana Revised Statutes of 1950, provided, however, that any bonds so issued shall first be approved at a taxpayers election held in the manner prescribed by Part II, Chapter 4, Title 39 of the Louisiana Revised Statutes of 1950. In each instance the board of commissioners of the district shall be the governing authority of the district and shall have all of the rights, powers and privileges conferred upon the respective governing authorities by said statutes. Additionally, the district shall have authority to levy taxes under the provisions of Article X, Section 10 of the Constitution for the purpose of improving, operating and maintaining its facilities, provided any such tax shall first be approved at a taxpayer's election as therein required. In the event any of the aforesaid parts of the Revised Statutes are in conflict with the provisions of this Part, then the provisions of this Part shall control, but in all other respects the cited portions of the Revised Statutes shall apply to the district for the purposes herein indicated.

Added by Acts 1958, No. 292, §3. Amended by Acts 1966, No. 198, §1.

§2604. Governing board; membership; tenure, vacancies, domicile

The district shall be governed and controlled by a board of five commissioners, each of whom shall be a qualified elector of Bossier Parish residing within and owning property within the district. The successors to the present members of the board of commissioners shall be appointed as follows: one by the police jury of Bossier Parish; one by the mayor and governing authority of the city of Bossier City; one by the mayor and governing authority of the village of Benton; one by the Bossier Parish school board and the fifth, by the Board of Commissioners of the Bossier Levee District. Any vacancy in the office of commissioner, due to death, resignation or any other cause, shall be filled by the remaining commissioners for the unexpired term.

Each member of the board of commissioners shall serve a term of five years from the date of his appointment to the board.

The board shall be domiciled at Benton, Louisiana.

Added by Acts 1958, No. 292, §4. Amended by Acts 1966, No. 448, §2.

§2605. Oaths; per diem allowance

Before entering upon his official duties, each member of the board of commissioners shall take the oath or affirmation required by Article XIX, Section 1, of the Constitution of Louisiana.

Each member of said board shall be entitled to receive, out of available funds of the district, a per diem allowance of forty dollars for each meeting of the board which he attends, but no such allowance shall be paid for more than thirty-six meetings in any calendar year.

Added by Acts 1958, No. 292, §5. Amended by Acts 1967, No. 101, §2; Acts 1974, No. 422, §1

§2606. Election of officers; record book; public inspection

Immediately after the members of the board of commissioners have been appointed by the governor, or as soon as thereafter is practicable, they shall meet and organize by electing from their number a president, vice-president and secretary who shall perform the duties normally required of such officers. The said board shall also cause the name by which the district is to be known to be recorded in a bound book which shall also be the depository of the minutes and proceedings of the board, certificates, oaths of commissioners and any and all corporate acts of the board. This book shall be in the custody of the secretary of the board and shall be open for public inspection at all reasonable times.

Added by Acts 1958, No. 292, §6.

§2607. Fishing activities; prohibition of certain gear

The Wildlife and Fisheries Commission may prohibit the recreational and commercial use of hoop nets, gill nets, trammel nets, strike nets, seines, wire nets, wire traps, and slat traps on Cypress Bayou Reservoir and Black Bayou Reservoir. In addition, the board of commissioners of the Cypress-Black Bayou Recreation and Water Conservation District shall maintain public access to Cypress Bayou Reservoir and to Black Bayou Reservoir.

Acts 2002, 1st Ex. Sess., No. 55, §1, eff. April 18, 2002.

§2608. Enumerated powers

In order to accomplish the purposes of the district and to secure the best results from the construction, operation and maintenance of the works and improvements of the district and to prevent damage to the property of the district, the board of commissioners may make such rules and regulations as it shall deem advisable to:

(1) Protect and preserve the works, machinery, improvements and property owned or controlled by the district and to prescribe the manner of their use;

(2) Prescribe the manner of buildings, bridges, roads, fences or other works in, along or across any channel, reservoir or other construction of the district;

(3) Prescribe the manner in which ditches, sewers, pipelines or other works shall be adjusted to or connected with the facilities of the district or any water course within the district and the manner in which the water courses of the district may be used for the disposal of waste;

(4) Prescribe the permissible uses of the waters of the district made available by its facilities and to prevent the pollution or the unnecessary waste of such water;

(5) Prohibit or regulate the discharge of sewers into the district of any liquid or solid waste deemed detrimental to the waters or facilities of the district.

Added by Acts 1958, No. 292, §8.

§2609. Parks, playgrounds and picnic areas for use of district facilities

The district shall have the authority to create, construct and administer such recreational parks, playgrounds and picnic areas as the board shall consider necessary for the use and enjoyment of any water facility owned or controlled by the district and shall provide adequate access to any lake or reservoir created by the district for the use of the public.

Added by Acts 1958, No. 292, §9. Amended by Acts 1966, No. 198, §2.

§2610. Engineering services by Department of Public Works

The Department of Public Works, State of Louisiana, shall furnish to the district such engineering services as it shall require and may cooperate with the district in the construction of any work or facility considered necessary by the district and said department to the purposes of the district. Any moneys appropriated by the state or said department shall be expended under the supervisory control of said department and the board of commissioners of the district may by appropriate contract subject any project to the supervisory control of said department.

Added by Acts 1958, No. 292, §10. Amended by Acts 1966, No. 198, §3.

§2611. Retention of mineral rights

Whenever it shall become necessary for the district or the department of public works, state of Louisiana to acquire the fee simple title to any land for the purpose of constructing any work or facility within the district, the owner thereof in his own behalf or in behalf of his assigns in the event of a prior assignment may retain the mineral rights to such property together with the right to grant mineral leases and servitudes thereon. No form of prescription shall divest such owner or his assigns of these rights so long as the district, the department of public works or some other department or agency of the state retains the ownership of the property, but should ownership

pass into private hands, the prescription of non-user provided by R.C.C. Arts. 789 and 3546 shall apply as in the usual case.

Added by Acts 1958, No. 292, §11.

§2612. Tax exemption; lease of lands for production of minerals

Should the district or the department of public works acquire servitude, right of way or flowage right over any property as distinguished from the fee simple title thereto such property shall not be subject to any ad valorem tax or tax of any nature by the state of Louisiana or any political subdivision thereof so long as such property is used for the purpose of the district. The provisions of this Part shall in no wise abridge the right of any individual, person, firm or corporation from whom a servitude, right of way, or flowage right may have been acquired to lease the land subject thereto for the production of oil, gas or other minerals and to produce or cause to be produced oil, gas or other minerals from such property.

Added by Acts 1958, No. 292, §12.

APPENDIX II

([return to authorization])

United States Soil Conservation Service Agreement

07-JUL-98 11:44 FROM:NRCS WRS ID:1+318+473+7747 PAGE 1/6

construction,
d herein remain
ocating, and

OPERATION AND MAINTENANCE AGREEMENT
FOR
STRUCTURAL MEASURES

CYPRESS-BLACK BAYOU WATERSHED PROJECT

THIS AGREEMENT made and entered into the 16th day of August, 1967, is between the Soil Conservation Service, United States Department of Agriculture, hereinafter referred to as the "Service", and the following organization, hereinafter referred to as the "Sponsor":

Cypress-Black Bayou Recreation and Water Conservation District.

The measures covered by this Operation and Maintenance Agreement are identified as:

1. Multi-purpose reservoirs Nos. 1 and 2.
2. Approximately 55 miles of multi-purpose channel improvement.
3. Eleven (11) weirs.
4. Two (2) pumping plants.
5. One (1) water control structure.

OPTIONAL FORM 99 (7-90) FAX TRANSMITTAL # of pages ▶ 6
To Danny Mathis Dept./Agency From Eldridge Phone # Fax # 676 3336
NSN 7540-01-317-7368 6099-101 GENERAL SERVICES ADMINISTRATION

I. OPERATIONS

A. The Sponsor will be responsible for and will operate or have operated without cost to the Service the structural measures in compliance with any applicable Federal, State and local laws, and in a manner that will assure that the structural measures will serve the purpose for which installed as set forth in the Work Plan.

B. The Service will, upon request of the Sponsor and to the extent that its resources permit, provide consultative assistance in the operation of the structural measures.

II. MAINTENANCE

A. The Sponsor will:

1. Be responsible for and promptly perform or have performed without cost to the Service except as provided in Paragraph III, Establishment Period, all maintenance of the structural measures determined by either the Sponsor or the Service to be needed.

2. Obtain prior Service approval of all plans, designs and specifications for maintenance work involving major repair.

B. The Service will, upon request of the Sponsor and to the extent that its resources will permit, provide consultative assistance in the preparation of plans, designs and specifications for needed repair of the structural measures.

III. ESTABLISHMENT PERIOD

A. During an Establishment Period, as herein defined, the Service will bear such part of the cost of any needed major repairs to the structural measures, including associated vegetative work, as is proportionate to the original construction costs borne by the Service in the construction of the structural measures except that the Service will not bear any of the cost for:

1. Repairs to channels or portions thereof which do not have permanent linings such as concrete, riprap, or grouted rock.

2. Repairs determined by the Service to have been occasioned by improper operation or maintenance, or both.

3. Repairs applicable to municipal or industrial water supply or to any other purpose for which construction costs are not authorized to be paid for in whole or in part with funds appropriated to the Service.

4. Repairs that are mutually determined by the Sponsor and the Service as being items of normal maintenance rather than major repair and are not therefore in keeping with the spirit and intent of the Establishment Period provisions.

B. The Establishment Period for structural measures (exclusive of any associated vegetative work) is a period of three years ending at midnight on the third anniversary of the date on which the structural measure is accepted.

C. The Establishment Period for vegetative work associated with a structural measure is a period from date of acceptance of the initial vegetative work to midnight of the date on which the Service writes the Sponsor advising that an adequate vegetative cover has been obtained. However, this period shall not exceed two growing seasons or the end of the Establishment Period for the associated structural measure whichever is greater in time.

D. As used in the two preceding paragraphs, and elsewhere in this agreement the following words have the meanings described below:

ACCEPTED, ACCEPTANCE: The date structural or vegetative measures are accepted from the contractor when a contract is involved, or the date structural or vegetative measures are completed to the satisfaction of the Service when force account operations are involved.

ADEQUATE VEGETATIVE COVER: A minimum of seventy percent (70%) evenly distributed cover of the desirable species, with no active rilling that cannot be controlled by the vegetation.

E. Major repair may involve such things as (1) repairing separated joints, cracks or breaks in the principal spillway, (2) correcting seepage, (3) replacing significant backfill around structures resulting from major erosion damage, (4) major revegetation due to failure to obtain an adequate vegetative cover, and (5) restoring areas with significant erosion caused by unusual flow (volume, recurrence or extended period of time) in emergency spillways.

F. No action with respect to needed repairs during the Establishment Period will be taken by the Sponsor or the Service which would lessen or adversely affect any legal liability of any contractor or his surety for payment of the cost of the repairs.

IV. INSPECTIONS AND REPORTS

A. During the Establishment Period the Sponsor and the Service will jointly inspect the structural measures at least annually and after unusually severe floods or the occurrence of any other unusual condition that might adversely affect the structural measures. It is desirable the annual inspections be performed during the month shown below. Any supplemental inspections then determined necessary will be scheduled and agreed to at that time.

August
(Month)

B. After the Establishment Period the structural measures will be inspected annually by the Sponsor, preferably during the month shown below, and after unusually severe floods or the occurrence of any other unusual condition that might adversely affect the structural measures.

August
(Month)

C. After the Establishment Period the Service may inspect the structural measures at any reasonable time.

D. A written report will be made of each inspection. The report of joint inspections will be prepared by the Sponsor with the assistance of the Service. A copy of each report will be provided by the party preparing the report to the other party within ten days of the date on which the inspection was made.

V. RECORDS

The Sponsor will maintain in a centralized location a record of all inspections performed both individually and jointly by the Sponsor and the Service, and of all significant actions taken by the Sponsor with respect to operation and maintenance. The Service may inspect these records at any reasonable time.

VI. GENERAL

A. The Sponsor will:

1. Prohibit the installation of any structures or facilities that will interfere with the operation or maintenance of the structural measures.

2. Obtain prior Service approval of the plans and specifications for any alteration or improvement to the structural measures.

3. Obtain prior Service approval of any agreement to be entered into with other parties for the operation or maintenance of all or any part of the structural measures, and provide the Service with a copy of the agreement after it has been signed by the Sponsor and the other party.

B. Service personnel will be provided the right of free access to the structural measures at any reasonable time for the purpose of carrying out the terms of this agreement.

C. The responsibilities of the Sponsor under this agreement are effective simultaneously with the acceptance of the works of improvement in whole or in part.

VII. SPECIAL PROVISIONS

A. Reservoir Pool Data

1. Site No. 1

Item	Elevation (Feet - MSL)	Area (Surface Acres)	Storage (Acre Feet)
Sediment Pool	162.5	550	1,270
Recreation Pool	170.2	1,050	5,730
Municipal and Irrigation Pool	179.6	3,100	18,000 1/
Total	--	--	25,000

1/ 15,550 Ac.Ft. - irrigation supply, 2,450 Ac.Ft. - municipal supply.

2. Site No. 2

Item	Elevation (Feet - MSL)	Area (Surface Acres)	Storage (Acre Feet)
Sediment Pool	168.0	120	320
Recreation Pool	170.2	170	280
Municipal and Irrigation Pool	185.0	750	6,000 1/
Total	--	--	6,600

1/ 4,100 Ac. Ft. irrigation supply, 1,900 Ac. Ft. municipal supply.

B. The Sponsor shall operate the municipal and irrigation pool of Site 1 by water releases into Site 2, and shall operate the irrigation water in Site 2 by releases into the channel below, and distribution through the project area shall be controlled by storage upstream from the weirs in the channels, and by distribution through the water control structure (Flat River to Willow Chute) and by the two irrigation pumping plants.

Such water shall be released for irrigation use only on Project area lands. The irrigation pools above the weirs on the channels shall be kept full of water at all times, except for emergencies, structural repairs, or for the purposes as agreed to by the Service and the Sponsor.

Irrigation water shall not be released below the weir farthest downstream except an amount of water approximating the existing low flows of the natural streams may be released continuously from the irrigation pools for livestock and other farm uses.

C. Water shall not be released from the sediment or recreation pools, except for structural repairs, or by written agreement between the Sponsor and the Service for other purposes such as aquatic weed control or fish population management.

D. The multi-purpose channels are to be installed for flood prevention, drainage and irrigation. The channel size in most instances is to be increased to provide the needed irrigation storage during peak irrigation periods. These channels may be used for delivery of municipal water supply to the vicinity of Bossier City, Louisiana only during those periods when they are not needed for any of the other purposes listed above.

E. The Sponsor will not allow fences to be constructed across the shoreline surrounding Site 1 unless permission is granted in writing to the person constructing fence; then a stile will be required over the fence permitting persons to cross.

F. The irrigation pumping plants will be operated in the manner for which they were designed. They will be operated only by the Project superintendent or other personnel authorized by the Sponsor.

VIII. Name of Sponsor Cypress-Black Bayou Recreation and Water Conservation District

By Clyde E. Fowler Title President

This action was authorized at an official meeting of the Sponsor named immediately above on August 10, 1967 at Benton, La.

Attest W. Horton Bone Title Secretary

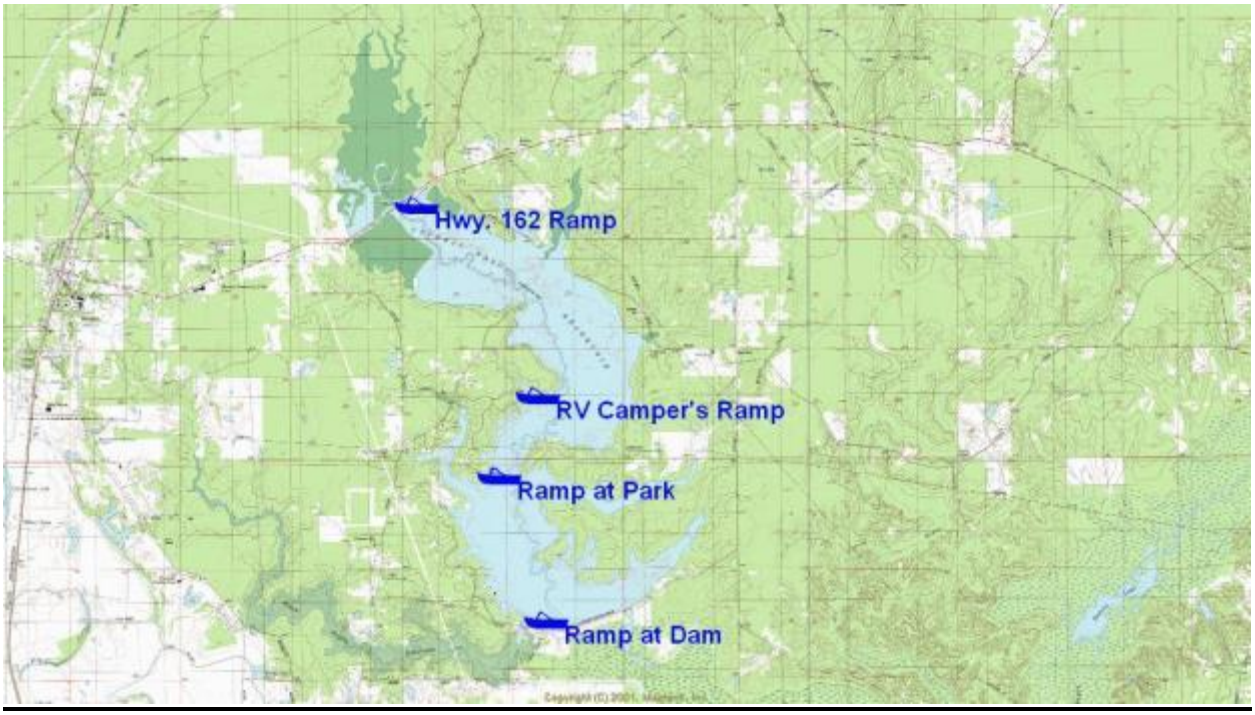
Soil Conservation Service, United States Department of Agriculture

By JB Ewell Title State Conservationist

APPENDIX III

(return to Boat Ramps**)**

Cypress Bayou Reservoir Public Boat Ramps



APPENDIX IV

(return to Type Maps**)**

Cypress Bayou Reservoir Type Maps

Cypress Bayou Reservoir – Aquatic Vegetation Type Map and Narrative – 2009

CYPRESS BAYOU RESERVOIR
VEGETATION TYPE MAP
2009

The vegetation type mapping survey was conducted on Cypress Reservoir (3400 acres, Bossier Parish) in September 2009 by Louisiana Department of Wildlife and Fisheries, Inland Fisheries personnel. Jeff Sibley and Kevin Houston identified the major aquatic plant species present in the lake and assessed the extent of coverage around the lake. At the time of the survey, the lake was 0.5 feet below pool and Secchi readings ranged from 16 inches to 23 inches.

Species Present

The following species of aquatic macrophytes were identified in Cypress Reservoir: hydrilla (*Hydrilla verticillata*), coontail (*Ceratophyllum demersum*), southern cutgrass (*Leersia hexandra*), maidencane (*Panicum* hemitomon), American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), water hyacinth (*Eichhornia crassipes*), primrose (*Ludwigia spp*.), alligator-weed (*Alternanthera philoxeroides*), pennywort (*Hydrocotyle* spp.), smartweed (*Polygonum hydropiperoides*), frog's-bit (*Limnobium spongia*), fanwort (*Cabomba caroliniana*), Illinois pondweed (*Potamogeton illinoensis),* watershield (*Brasenia* schreberi), big floating bladderwort (*Utricularia inflata*), *Sagittaria* spp., and giant salvinia (*Salvinia molesta).*

Severity

Aquatic vegetation covers approximately 7.5% (450 acres) of Cypress Reservoir. Aquatic vegetation is almost totally limited to the upper area of the lake above "Eagle's Nest" point and especially above the Hwy 162 Bridge. Vegetation is very dense near the bridge and adjacent boat ramp, but densities decrease rapidly as one travels down the lake. As the lake spreads out, depths increase and wave action helps keep vegetation levels down.

Aquatic vegetation is almost nonexistent in the rest of the lake except the extreme back end of pockets and tributaries. The main lake tends to be more turbid from waves and boating activity which likely keeps submerged vegetation from growing. Maidencane does line much of the shoreline in areas that are not developed for residential purposes.

Water hyacinths were found in the upper end of the lake, but are at low densities. Hydrilla and American lotus are severe in the upper area near the public boat launch. Access is limited to the creek channel above the bridge and downstream until the lake starts to widen. American lotus poses a problem with limiting access to some homes and camps on the upper end of the lake, but otherwise is generally beneficial for fish habitat. Hydrilla was located out to the five feet below pool contour line.

Giant salvinia was first found on the lake in 2007 near the public launches. Although the plants have expanded their range, there was still less than 40 acres on the lake. The general morphology of the lake plus on-going herbicide applications has limited the spread of salvinia. Salvinia was generally limited to the extreme back ends of coves in calm water or mixed in small amounts around the shore of the lake in the cutgrass and maidencane. On the upper reaches of the reservoir, the other vegetation present is competing with salvinia for nutrients and space. No large mats were found on the lake. Many of the areas where salvinia was found should dewater during the upcoming drawdown that is for shoreline erosion repairs.